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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,698	12/17/2003	Lan Chen	246696US90	5689
22850	7590	05/31/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER VIANA DI PRISCO, GERMAN	
			ART UNIT 2609	PAPER NUMBER
			NOTIFICATION DATE 05/31/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/736,698

Applicant(s)

CHEN ET AL.

Examiner

German Viana Di Prisco

Art Unit

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/17/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :0317/2004, 10/21/2005, 09/25/2006.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

### ***Information Disclosure Statement***

2. The information disclosure statements submitted on 03/17/2004, 10/21/2005, and 09/25/2006 have been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 7 is rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory matter. A computer program per se is not patent eligible subject matter. The computer program product claimed is not combined with an appropriate computer readable medium capable of producing a useful, concrete and tangible result when used in a computer system. Therefore said computer program product does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1,3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietraski et al. (United States Patent Application Publication No.: US

2004/0187069 A1) in view of Franchi et al (European Patent Application Publication No.: EP 1 381 180 A1).

Consider claims 1,3, and 5, Pietraski et al. disclose a packet communications method, a base station, and a mobile station for carrying out packet communications between a base station and a mobile station located in an area controlled by the base station (paragraphs [0040] and [0041]), comprising: a channel quality detecting unit (inherently taught) for detecting a channel quality between the base station and the mobile station; and a modulation scheme determination unit (inherently taught) for determining a modulation scheme to be used in the packet communications based on the channel quality (paragraph [0062]).

However Pietraski et al. do not disclose a buffered data monitoring unit for detecting the amount of data buffered in a transmission buffer of a sender and determining a modulation scheme based on the buffered data amount.

In the same field of endeavor, Franchi et al. disclose a communication method and buffered data monitoring unit (inherently taught) wherein the modulation scheme may be varied according to the amount of data buffered for transmission (abstract, paragraph [0004]).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to detect the amount of data buffered in a transmission buffer of a sender as disclose by Franchi et al. in the method of Pietraski et al. in order to efficiently select the modulation type.

8. Claims 2,4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietraski et al. (United States Patent Application Publication No.: US 2004/0187069 A1) in view of Franchi et al (European Patent Application Publication No.: EP 1 381 180 A1), and further in view of Alastalo (United States Patent No.: 6,721,302 B1).

Consider claims 2,4, and 6 and as applied to claims 1, 3, and 5 respectively above, Pietraski et al. as modified by Franchi et al. disclose the claimed invention but fail to specifically disclose that padding, which is added to the data buffered in the transmission buffer of the sender when the buffered data amount is less than a transmission unit size, becomes the minimum, based on the channel quality and the buffered data amount.

In the same field of endeavor Alastalo discloses reducing the amount of padding, which is added to the data buffered in the transmission buffer of the sender when the buffered data amount is less than a transmission unit size (data which is of a lesser length than the longest length data transmission is thereby determined), by selecting the modulation type based on the channel quality (received signal strength) and the buffered data amount (determination is made of the lengths of the data packets to be communicated), (column 3 lines 1-43).

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Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to minimize padding based on the channel quality and the buffered data amount as disclosed by Alastalo in the method of Pietraski et al. as modified by Franchi et al. in order to obtain a larger throughput.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Itoh et al. (United States Patent Application Publication No.: 2006/0205358 A1) disclose improving transmission efficiency by recognizing the current receiving quality of the mobile terminal.

10. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Viana Di Prisco whose telephone number is (571) 270-1781. The examiner can normally be reached on Monday through Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

German Viana Di Prisco  
G.V.D.P/gvdp

May 22, 2007

  
RAFAEL PEREZ-GUTIERREZ  
SUPERVISORY PATENT EXAMINER

5/23/07